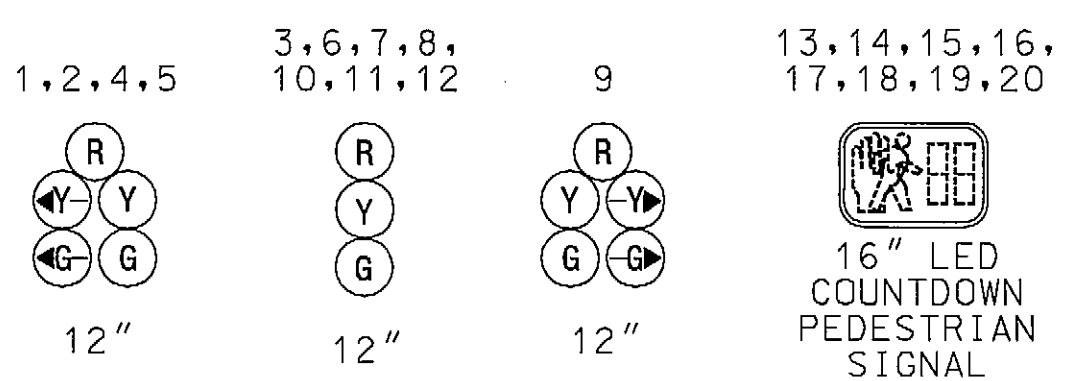
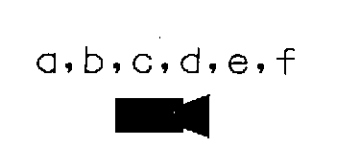


MD 355 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

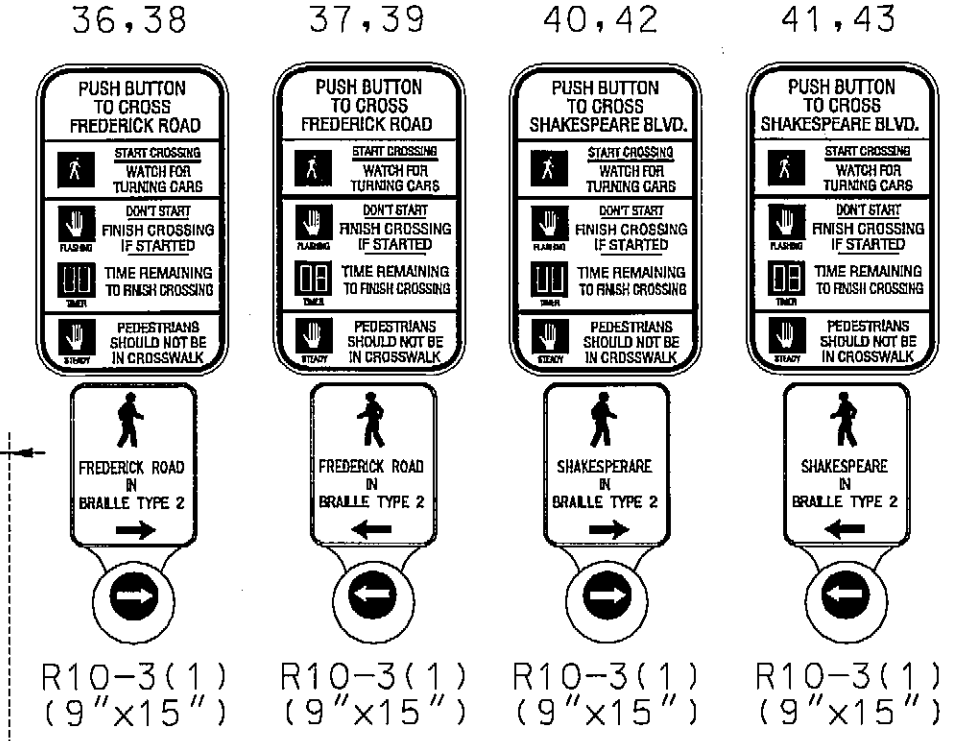
PROPOSED LED SIGNALS



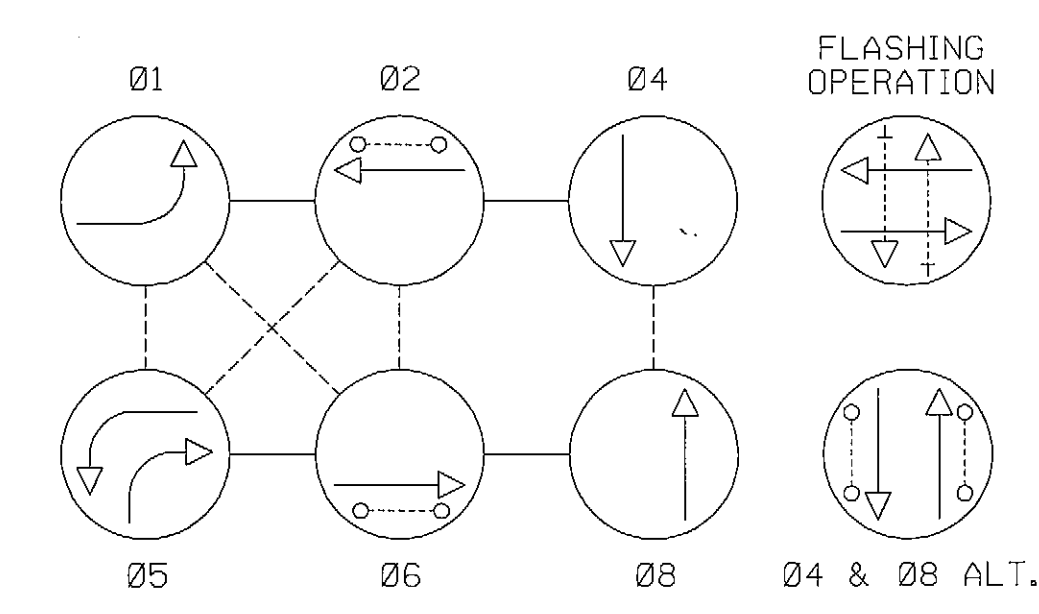
PROPOSED VIDEO DETECTION



PROPOSED ACCESSIBLE PUSHBUTTON AND SIGN



NEMA PHASING



NOTE: PHASES ASSOCIATED BY A DASHED LINE MAY/WILL OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

GENERAL NOTES

1. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING MSHA STANDARD PRACTICES FOR TRAFFIC CONTROL.
2. THE CONTRACTOR SHALL CONTACT MISS UTILITY TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO THE INSTALLATION OF PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
3. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS. TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
4. THE CONTRACTOR SHALL INTEGRATE PROPOSED CONCRETE FOUNDATIONS WITH NEW SIDEWALK RAMP WHERE NECESSARY.
5. THE MONTGOMERY COUNTY TECH CENTER WILL BE RESPONSIBLE FOR ALL INTERNAL CABINET WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING AND PROPERLY LABELING ALL SIGNAL CABLES.
6. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ABANDONED ELECTRICAL CABLES.
7. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL RECONSTRUCTION.
8. THE CONTRACTOR SHALL VERIFY THE PROPOSED POLE LOCATION(S) PRIOR TO INSTALLATION.
9. THE CONTRACTOR SHALL CENTER THE PROPOSED CROSSWALKS ON NEWLY CONSTRUCTED RAMP.
10. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
11. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E.21 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL THE CONFLICT HAS BEEN RESOLVED. IF NEEDED, A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
12. PUSHBUTTON IS TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA DOES NOT HAVE TO REACH MORE THAN 18 IN.
13. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60 IN. X 60 IN. LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
14. THE 10 FT. MINIMUM SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER OF POLE TO CENTER OF POLE.
15. PUSHBUTTON ARROWS SHOULD BE TURNED PARALLEL TO THE CROSSWALK FOR WHICH THEY ARE INTENDED.
16. ALL ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE MONT. CO. SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. KEITH LORD AT 301-279-1290 TO COORDINATE.
17. ALL TRAFFIC SIGNAL MODIFICATIONS SHALL BE CONSTRUCTED PRIOR TO SIDEWALK INSTALLATION.
18. THE CONTRACTOR SHALL ENSURE THE EXISTING TRAFFIC SIGNAL REMAINS OPERATIONAL UNTIL RECONSTRUCTED TRAFFIC SIGNAL IS OPERATIONAL.
19. THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTION TO AVOID THE UNDERGROUND UTILITIES IN THE NORTHEAST AND SOUTHEAST CORNERS.
20. THE CONTRACTOR SHALL REMOVE AND REPLACE CONCRETE SIDEWALK AT THE NEAREST JOINT.
21. WOOD SUPPORTS INSTALLED IN CONCRETE SHALL BE INSTALLED WITH ELEVATED FOUNDATIONS AS PER STANDARDS MD 812.05-01 AND MD 812.05-02.
22. THE CONTRACTOR SHALL CONTACT THE MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 72 HOURS IN ADVANCE TO LOCATE EXISTING SIGNAL EQUIPMENT. CONTACT MR. KAMAL HAMUD AT 240-777-8761 TO COORDINATE.
23. ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCCELL.

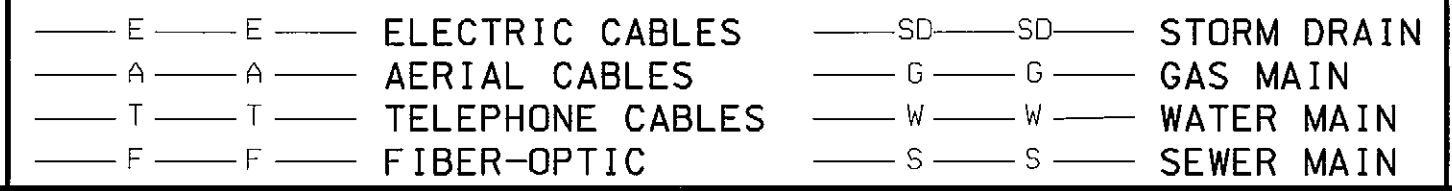
LINE HEIGHTS (LH) 1
COMM. CABLES (9) - 19' TO 21'
SPAN WIRE - 25'-3"

LINE HEIGHTS (LH) 1
COMM. CABLES (9) - 17' TO 25'

CONSTRUCTION DETAILS

- A. INSTALL NEMA SIZE "6" BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT. (NOTE: 2-2 IN. AND 2-4 IN. 90 DEGREE BENDS).
- B. INSTALL A 27 FT. STEEL POLE WITH A 60 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS, 20 FT. LIGHTING ARM WITH 250 WATT HPS LUMINAIRE, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON AND R10-3(1) SIGN TO READ "PUSH BUTTON TO CROSS FREDERICK ROAD". (NOTE: 1-3 IN. 90 DEGREE PVC CONDUIT BEND) (SEE NOTE 19)
- C. INSTALL A 27 FT. STEEL POLE WITH A 60 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS AND A 20 FT. LIGHTING ARM WITH 250 WATT HPS LUMINAIRE. (NOTE: 1-3 IN. 90 DEGREE PVC CONDUIT BEND)
- D. INSTALL A 27 FT. STEEL POLE WITH A 60 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON AND R10-3(1) SIGN TO READ "PUSH BUTTON TO CROSS FREDERICK ROAD". (NOTE: 1-3 IN. 90 DEGREE PVC CONDUIT BEND) (SEE NOTE 19)
- E. INSTALL A 27 FT. STEEL POLE WITH A 50 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA, LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, ACCESSIBLE PUSHBUTTON AND R10-3(1) SIGN TO READ "PUSH BUTTON TO CROSS SHAKESPEARE BLVD.". (NOTE: 1-3 IN. 90 DEGREE PVC CONDUIT BEND)
- F. INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801-01.01, BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON AND R10-3(1) SIGN TO READ "PUSH BUTTON TO CROSS SHAKESPEARE BLVD.". (NOTE: 1-3 IN. 90 DEGREE PVC BEND)
- G. INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801-01.01, BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON AND R10-3(1) SIGN TO READ "PUSH BUTTON TO CROSS FREDERICK ROAD". (NOTE: 1-3 IN. 90 DEGREE PVC BEND)
- H. INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE (CUT TO 5 FT.) WITH FOUNDATION SHA STD. MD 801-01.01, BREAKAWAY COUPLINGS, ACCESSIBLE PUSHBUTTON AND R10-3(1) SIGN TO READ "PUSH BUTTON TO CROSS FREDERICK ROAD". (NOTE: 1-3 IN. 90 DEGREE PVC BEND)
- J. PULL BACK AND RE-ROUTE EXISTING INTERCONNECT CABLE PER WIRING DIAGRAM.
- K. INSTALL 5 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING.
- L. REMOVE EXISTING CUT-THROUGH, CONSTRUCT SHA STD. MD 655-21 MEDIAN CUT-THROUGH WITH DETECTABLE WARNING SURFACE SHA STD. MD 655-40, CONSTRUCT SHA STD. TYPE A CURB IN LIEU OF FLARES.
- M. REMOVE EXISTING SIDEWALK AND RAMP, CONSTRUCT NEW SIDEWALK AND RAMP (SEE DETAILS SHEET SG-02).
- N. REMOVE EXISTING GROUND MOUNTED SIGN AND SUPPORT AND INSTALL NEW GROUND MOUNTED SIGN ON ONE 4 IN. X 4 IN. WOOD POST. (SEE NOTE 21)

UTILITY LEGEND



- A. INSTALL ELECTRICAL HANDHOLE.
- P. INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED) - FOR PROPOSED UNDERGROUND POWER SERVICE. CAP AND MARK CONDUIT, AND LEAVE A 1 FT. STUB WITH PULL STRING AT POWER SOURCE FOR USE BY OTHERS. (BORE CONDUIT UNDER ROADWAY)
- Q. REMOVE 15 FT. OF EXISTING 5 IN. WHITE LANE LINE PAVEMENT MARKING.
- R. INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED).
- S. INSTALL 3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED).
- T. INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED).
- U. INSTALL 2-4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (BORED).
- V. INSTALL GROUND MOUNTED SIGN ON TWO 4 IN. X 6 IN. WOOD POSTS.
- W. INSTALL METERED SERVICE PEDESTAL (NOTE: 2-2 IN. AND 1-4 IN. 90 DEGREE PVC BENDS).
- X. REMOVE EXISTING PAVEMENT MARKINGS AND INSTALL 12 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS FOR CROSSWALK.
- Y. REMOVE EXISTING PAVEMENT MARKINGS AND INSTALL 2 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS FOR STOPLINE.
- Z. USE EXISTING HANDHOLE.
- AA. USE EXISTING CONDUIT.
- BB. REMOVE EXISTING HANDHOLE. CAP AND ABANDON EXISTING CONDUIT(S) AT THE NEAREST HANDHOLES.
- CC. REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. CAP AND ABANDON ANY EXISTING CONDUIT.
- DD. ABANDON EXISTING LOOP DETECTOR.
- EE. REMOVE EXISTING SIDEWALK AND CONSTRUCT 5 IN. SIDEWALK.

EXISTING CONCRETE SIDEWALK TO BE REMOVED

APPROVALS		REVISIONS	
TEAM LEADER			
ASST. DIV. CHIEF			
DIVISION CHIEF			
OFFICE DIRECTOR			

REVISIONS	

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 355 (FREDERICK ROAD)
AT SHAKESPEARE BOULEVARD

SIGNALIZATION PLAN SHEET

SCALE 1"=20' ADVERTISED DATE 12-17-1993 CONTRACT NO. BW-683-802-312	
DESIGNED BY M.A. MEARS	COUNTY MONTGOMERY
DRAWN BY M.A. MEARS	LOGMILE 15035519.39
CHECKED BY P.A.R.	TMS NO. I-853
F.A.P. NO.	TOD NO.
TS NO. 3392-A	DRAWING SG-01 OF 02
SHEET NO. 1 OF 2	

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BY: osbornmm

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